- 10. (Currently amended) The method of claim 1, wherein the subject has a cell is a hematopoietic disorder cell and a PS and a retinoic acid, are administered to the subject in an amount sufficient for the treatment thereof.
- 11. (Currently amended) The method of claim 1, wherein the subject has <u>cell is</u> a <u>malignancy of breast epithelial cells</u>, and a PS and an antidiabetic compound or a ligand for a transcription factor is administered to the subject, wherein the antidiabetic compound or ligand induces differentiation of the cells.
- 12. (Currently amended) The method of claim 1, wherein the subject has prostate earcinoma and wherein the unwanted cell proliferation is a of prostate cells, and a PS and dihydrotestosterone or liarozole are administered to the subject.
- 13. (Currently amended) The method of claim 1, wherein a <u>the</u> proliferating cell is induced to differentiate and the PS is supplied such that it is present while the cells are <u>is</u> in a state of induced differentiation.
- 14. (Currently amended) A method of detecting the presence of a cell proliferation disorder characterized by unwanted cell proliferation in a subject comprising:

providing a differentiation agent to a cell of a subject and a control cell to produce a differentiated cell;

providing the cells with a light emitting agent comprising a porphyrin; activating said agent; and

detecting an increase in light emission between in the differentiated cell of a subject and a as compared to the control cell,

thereby detecting indicating the presence of <u>cell proliferation</u> a disorder characterized by unwanted cell proliferation.

- 15. (Currently amended) The method of claim 14, wherein the light emitting agent is a fluorescent compound or a PS protoporphyrin.
- 16. (Currently amended) The method of claim 15 14, wherein the photosensitizer is includes chlorin e6 or a chlorin derivative.
 - 17. (Cancelled)
 - 18. (Cancelled)
 - 19. (Cancelled)
 - 20. (Cancelled)

- 21. (Cancelled)
- 22. (Cancelled)
- 23. (Cancelled)
- 24. (Cancelled)
- 25. (Cancelled)
- 26. (Currently amended) A method of controlling inhibiting androgen-dependent prostate cancer in a subject in need thereof comprising:

inducing differentiation in a prostate epithelial cell; providing the cell with a compound that induces photosensitizer (PS) accumulation, wherein the compound is 5-aminolevulinic acid (ALA); and activating the PS,

thereby killing the cell and controlling the cancer inhibiting androgen-dependent prostate cancer.

- 27. (Cancelled)
- 28. (Previously added) The method of claim 26, wherein the ALA is coupled to a targeting moiety.
- 29. (New) The method of claim 10, wherein retinoic acid is provided in an amount sufficient to induce differentiation.
- 30. (New) The method of claim 11, wherein troglitazone or transcription factor PPAR gamma is provided in an amount sufficient to induce differentiation.
- 31. (New) The method of claim 12, wherein an androgen, a retinoid, vitamin D or liarozole is provided in an amount sufficient to induce differentiation.
 - 32. (New) The method of claim 14, wherein the method is performed in vivo.
- 33. (New) The method of claim 14, wherein the method is performed ex vivo on a sample comprising the cell taken from the subject.

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